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## Victoria V. Hotra, Olena Yu. Ganushchak *Uzhhorod National University, Ukraine*SPURRING ENTREPRENEURSHIP INVESTMENT MANAGEMENT PROCESSES IN MODERN SETTINGS

The study argues that in modern realia, investment activity is a powerful driver for sustainable growth and dynamic economic development in Ukraine as well as a robust foundation to facilitate further reproduction and expansion of operational and innovation potential of business structures and to boost their competitiveness and performance efficiency. However, the lack of a comprehensive highly effective investment management framework which is capable to provide an adequate response to rapidly changing market environment and is aimed at ensuring the rational use of investment resource challenges the need develop and enhance conceptual and methodological approaches and tools for more effective entrepreneurship investment management, the application of which will have important implications for spurring socioeconomic development through an updated investment mechanism. Given the limited resources available, a special emphasis is put on the specific methodological toolkit to optimize investment portfolio as an essential element in business investment management framework based on the use of relevant economic and mathematical methods and models which ensures a reasonable choice of investment area. The article attempts to substantiate the selected instruments and methodological approach to facilitate effective decision-making as to building an optimal investment portfolio. This process is represented by consistent progress along the chain "investment proposal portfolio – alternative investment portfolio – company investment portfolio" followed by gradual narrowing and each link structure optimization.

**Keywords:** investment process; investment portfolio; alternative investments; investment mechanisms; competitiveness; management; entrepreneurship.

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Y сучасних реаліях інвестиційна діяльність виступа $\epsilon$  одним із найважливіших факторів стійкого зростання та динамічного розвитку вітчизняної економіки, оскільки становить підгрунтя для відтворення і розширення виробничо-інноваційного потенціалу підприємницьких структур, підвищення їх конкурентоспроможності й ефективності функціонування. Проте відсутність на багатьох з них цілісної високоефективної системи інвестиційного менеджменту, що  $\epsilon$  адекватною до вимог мінливого ринкового середовища та спрямованою на забезпечення раціонального використання інвестиційних ресурсів, актуалізує проблему вдосконалення і розвитку науково-методичних підходів та інструментарію управління інвестиційним забезпеченням підприємництва, застосування яких сприятиме прискоренню соціально-економічного розвитку через механізм інвестування. В умовах обмеженості ресурсів неодмінною складовою управління інвестиційним забезпеченням підприємництва визначено науково-методичний інструментарій оптимізації її об'єктної спрямованості, який має забезпечувати обтрунтований вибір напрямів капіталовкладень на основі застосування адекватних економіко-математичних методів і моделей. У статті обтрунтовано інструментарій та методичний підхід щодо прийняття рішень із формування оптимального інвестиційного портфеля, який представлено як послідовний процес просування вздовж ланцюга «портфель інвестиційних пропозицій –

портфель інвестиційних альтернатив — інвестиційний портфель підприємства» із поступовим звуженням та оптимізацією структури кожної з його ланок.

**Ключові слова:** інвестиційний процес; інвестиційний портфель; інвестиційні альтернативи; механізми інвестування; конкурентоспроможність; управління; підприємництво.

# Виктория В. Готра, Елена Ю. Ганущак Ужгородский национальный университет, Украина АКТИВИЗАЦИЯ ПРОЦЕССОВ УПРАВЛЕНИЯ ИНВЕСТИЦИОННЫМ ОБЕСПЕЧЕНИЕМ ПРЕДПРИНИМАТЕЛЬСТВА В СОВРЕМЕННЫХ УСЛОВИЯХ

В современных реалиях инвестиционная деятельность выступает одним из важнейших факторов устойчивого роста и динамичного развития отечественной поскольку составляет для воспроизводства основу экономики, производственно-инновационного потенциала предпринимательских структур, повышения их конкурентоспособности и эффективности функционирования. Однако отсутствие на многих из них целостной высокоэффективной системы инвестиционного менеджмента, адекватной требованиям меняющегося рыночной среды и направленной на обеспечение использования инвестиционных ресурсов, актуализирует совершенствования и развития научно-методических подходов и инструментария управления инвестиционным обеспечением предпринимательства, применение которых будет способствовать ускорению социально-экономического развития через механизм инвестирования. В условиях ограниченности ресурсов непременной составляющей управления инвестиционным обеспечением предпринимательства определены научнометодический инструментарий оптимизации её объектной направленности, который должен обеспечивать обоснованный выбор направлений капиталовложений на основе применения адекватных экономико-математических методов и моделей. В статье обоснованы инструментарий и методический подход по принятию решений касательно формирования оптимального инвестиционного портфеля, который представлен как процесс последовательного продвижения вдоль цепи «портфель инвестиционных предложений – портфель инвестиционных альтернатив – инвестиционный портфель предприятия» с постепенным сужением и оптимизацией структуры каждой из его звеньев.

**Ключевые слова:** инвестиционный процесс; инвестиционный портфель; инвестиционные альтернативы; механизмы инвестирования; конкурентоспособность; управления; предпринимательство.

Formulation of the problem. A complex open socio-economic system, which modern methodology defines the company, under the influence of heterogeneous and changing environment, to ensure the efficiency of its operation, dynamic growth and development must have a certain degree of flexibility and adaptive capacity to take advantage of the opportunities offered by it. and counteracting the negative disturbances that accompany economic activity. In this regard, in the instability of the market environment with its inherent high degree of uncertainty, diversity and dynamism of economic transformations, resource shortages and other adverse factors affecting the effectiveness of entrepreneurship, the need for scientifically sound management methods in all areas of management, in particular its component

as an investment activity, as the intensification of the latter is an important basis for providing strategic advantages.

Analysis of recent research and publications. At present, there is a large number of scientific papers in which at the theoretical and methodological levels a wide range of issues of

investment management of entrepreneurship is thoroughly developed. Thus, among the achievements of modern science, the basis of research in this area, first of all, are the works of such leading foreign scientists as W. Behrens, G. Birman, M. Bromwich, L.J. Hitman, L. Kruschwitz, H.M. Markowitz, D. Northcott, F.J. Fabozzi, W. Sharp and others. A significant contribution to the development of the theory of investment management, in particular, its scientific approaches and tools, methodology of investment decision-making was made by such well-known scientists as I. Blank, V. Geets, L. Donets, A. Zagorodniy, V. Zaruba, O. Kuzmin, Yu. Makogon, P. Break, K. Pokataeva, V. Savchuk, V. Fedorenko, D. Chervanev, V. Shevchuk, V. Scherbak, A. Yakovlev, O. Yastremskaya and others.

The purpose of this article is to study the intensification of management processes of investment support of entrepreneurship in modern conditions.

**Presentation of the main results.** Given that the level of efficiency of investment activity is determined by the direction and nature of the impact of many interrelated factors not only external to the enterprise but also its internal environment, and increases by overcoming the uncertainty due to significant variation of their parameters to increase objectivity and the validity of management decisions it is necessary to use adequate economic, mathematical and statistical methods of modeling, which, giving the tools of abstract description, formalization and study of the most important causal relationships of technical and economic variable systems and objects, provide an opportunity to identify and assess patterns and trends in their development, predict the consequences, model the impact on the behavior of the studied system, formulate adequate conclusions for use in management, which will introduce elements of determinism in the course of investment activities, increase the degree of optimization of resource use and reduce the level of associated risk. In turn, an essential component of investment efficiency - making sound management decisions on the choice of investment objects, carried out on the basis of solving problems of optimal allocation of investment resources – requires extensive use of adequate economic and mathematical methods and models, leading to increasing the role and importance of improvement, and the development of scientific and methodological tools for preparing and making investment decisions. Thus, the strategic importance of the intensification of investment activity and optimization of its directions for renewal of production potential and its expanded reproduction at the enterprises of machine-building complex, indicates the need to continue thorough theoretical and applied research on improving the efficiency of investment management and their scientific and practical significance. Problems of substantiation of conceptual theoretical and methodological approaches to the formation and selection of investment strategy in the process of managing investment support of entrepreneurship, as well as methodological tools for optimizing the latter are now well developed and covered in a wide range of scientific sources, including. The instability of the economic situation, which is inherent in the current stage of development, determines the scientific, theoretical and practical significance of generalization, further improvement and adaptation of existing and development of new economic and mathematical models adequate to modern realities. development and scientific substantiation of the methodology for assessing the effectiveness of investment. The limited ability of the enterprise to financially support investment necessitates the development and adoption of effective management decisions on the optimal by a certain criterion (criteria) distribution of available resources between potential attractive recipients of investment capital. In the modern tools of investment management, represented mainly by economic and mathematical methods and models of decision-making related to the management of investment resources of economic entities, an important place is occupied by methods of mathematical programming, as they are a powerful basis for solving optimization problems in the investment portfolio structure. enterprises. In this case, given the complexity of investment management of the enterprise, associated, in particular, with the need to take into account many

external and internal factors of influence, it is extremely important, in our opinion, to justify the sequence and content of stages of development and decision-making. enterprises, so in order to develop the theoretical and organizational foundations of investment management, we offer the following theoretical and instrumental procedures for this process (Fig. 1). Let's consider the presented scheme in more detail. At stages 1–4 of the process of development and decision-making on the formation of the optimal investment portfolio of the enterprise within the system of its investment management the theoretical basis of the researched process is formed, which is transferred to the subsystem of development, substantiation and investment decisions, variant of the decision on formation of an investment portfolio which is accepted at the last stage.

Thus, the implementation of the investment decision made in accordance with the criteria set out in the second stage, taking into account the constraints set in the third stage, and for the set of investment proposals formed in the fourth stage, should ensure the goal of investment activities formulated in the first stage. In the fifth stage, a rapid analysis and evaluation of the effectiveness of the accumulated investment proposals is carried out, followed by the selection of many attractive to the investor and corresponding to its resource and technological potential of potential investment objects according to the criteria defined in stage 2.1. In our opinion, such criteria can act as traditional indicators of efficiency of investment projects, in particular, the net present value (NPV), profitability index (PI), internal rate of return (IRR), payback period (PBP),as well as the amount of investment required (I), usefulness of the expected result (I),the level of investment attractiveness of the enterprise (I), if the initiator or environment of the project is a third-party company, and possibly other indicators, that their investor will consider necessary:

$$\underline{NPV} \leq NPV_i \bigcap_{i=1}^n \underline{IP} \leq IP_i \bigcap_{i=1}^n \underline{IRR} \leq IRR_i \bigcap_{i=1}^n PBP_i \leq \overline{PBP} \bigcap_{i=1}^n I \leq \overline{I} \bigcap_{i=1}^n \underline{U} \leq U_i \bigcap_{i=1}^n \underline{R_{IIIII}} \leq R_{IIIII_i}, \tag{1}$$

де  $\underline{X}$  – the minimum acceptable value of a certain criterion (lower limit);

 $\overline{X}$  – maximum acceptable value of a certain criterion indicator (upper admissible limit);

 $X_i$  – individual value of a certain indicator, calculated on the i-th investment proposal.

All investment proposals that have characteristics belong to the set  $\Omega$ , within which the condition is fulfilled (1), will be attractive to the investor. Within the sixth stage, the effectiveness of each of the selected investment proposals is subjected to in-depth analysis by simulating the consequences of its implementation by the Monte Carlo method, which, in our opinion, will increase the validity of previous project evaluations. In this case, if the investor considers unsatisfactory the results of statistical analysis of the results of simulating the effectiveness of a proposal, the latter may be excluded from further consideration. Then, based on the results of multicriteria filtering and modeling the effectiveness of investment proposals at the next seventh stage, a portfolio of alternative applicants for inclusion in the investment portfolio of the enterprise is formed. The implementation of the relevant optimization procedure forms the ninth stage, and the tenth analyzes the obtained solution of the problem, in particular, predicts the degree of achievement of the desired state of investment activity in the implementation of the corresponding solution of the investment portfolio, and the final decision on its formation: relevant recommendations from the subsystem of development, justification and investment decision-making are transferred to the investment management system.

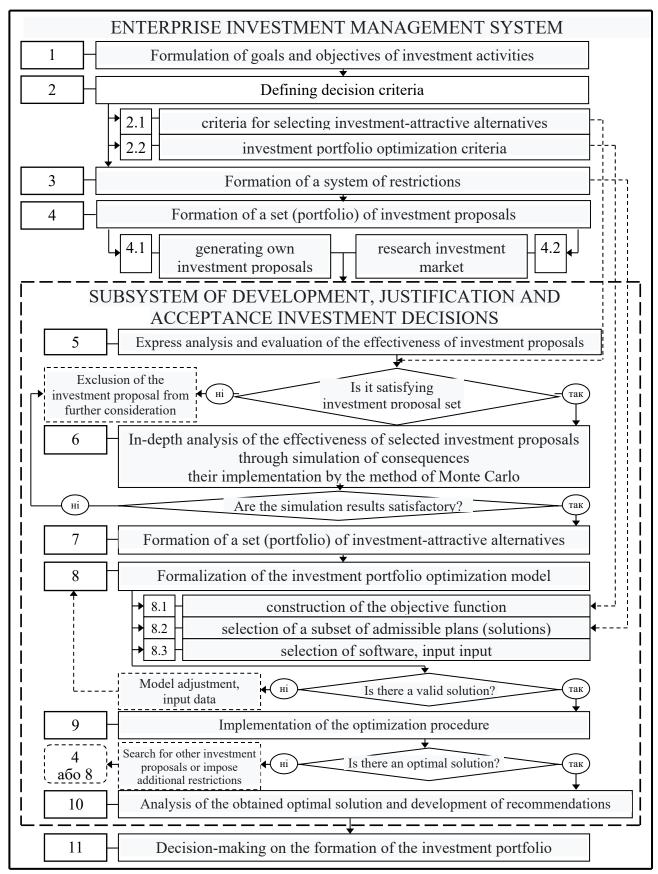


Fig. 1. The scheme of decision-making on the formation of the optimal investment portfolio in business

Conclusions and prospects for further research Thus, the process of substantiation, development and adoption of investment decisions is a consistent advance along the chain "portfolio of investment proposals – portfolio of investment alternatives – investment portfolio of the company" with gradual narrowing and optimization of each link. The peculiarity of investment management is the variety of ways and means to achieve the set goals: the same results can be obtained at different resource costs, therefore, one of the main principles that should be the basis of the management decision-making process is the principle of optimality, choose a planning and management decision that would best take into account the company's capabilities and external investment conditions. In turn, the principle of scientific validity of the approach to the formation of investment strategy of the entity requires adequate methodological support for the process of development and decision-making, including economic and mathematical tools for optimizing the investment portfolio, which determines the importance of its development to improve system efficiency. investment management of the enterprise.

#### References

- (2004).Strategicheskoe upravlenie 1. Ансофф И. 1. Ansoff, I. [Strategic management]. Translation from English. управление. Пер. с англ.; Науч. ред. и Scientific edition and author's foreword by L.I. Evenko. авт. пред. Л. И. Евенко. М.: Экономика, Moscow: Ekonomika. 489 p. [in Russian].
- 2. Burgelman, R. A., Maidigue, M. A. Strategic Management of Technology and Innovation. Homewood, Illinois. IRWIN.
- 3. Yermoshenko, M.M., Hanushchak-Iefimenko, L.M. Mekhanizm rozvytku innovatsiinoho potentsialu klasteroob'iednanykh pidpryiemstv: nauk. [Mechanism development Monohrafiia of innovative potential of cluster-related enterprises: science monograph]. Kyiv: National Academy of 236 c. Management. 236 p. [in Ukrainian].
- 4. Hanushchak-Iefimenko, L.M. (2014). Innovatsiinyi 4. Ганущак-Єфіменко Л. М. rozvytok pidpryjemnytstva v Ukraini: stratehichni oriientyry: monohrafiia [Innovative development of entrepreneurship in Ukraine: strategic guidelines: Національна академія управління, 2014. monograph]. Kyiv: National Academy Management. 400 p. [in Ukrainian].
- 5. Hanushchak-Iefimenko, L.M. (2013). Kontseptualni zasady upravlinnia innovatsiino-investytsiinoiu diialnistiu promyslovykh pidpryiemstv [Conceptual інвестиційною діяльністю промислових of management of innovation investment activity of industrial enterprises]. Aktualni problemy ekonomiky = = Actual Problems of Economics, No. 10, P. 93–99 [in Ukrainian].
- 6. Hurzhii, A.M., Karakai, Yi.O., Petrenko, Z.O. et al. 6. Інноваційна діяльність в Україні: (2006). Innovatsiina diialnist v Ukraini: monohrafiia монографія. Кол. автор.: А. М. Гуржій, [Innovative activity in Ukraine: monograph]. Kyiv: | Ï. О. Каракай, З. О. Петренко та ін. К.: UkrINTEI. 152 p. [in Ukrainian].
- 7. Turpin, D. Strategic (1993).Alliances Japanese Firms. Myths and Realities Long Range Japanese Firms. Myths and Realities Long

#### Література

- Стратегическое 2004. 489 c.
- (2004). 2. Burgelman R. A., Maidigue M. A. Strategic Management of Technology and Innovation. Homewood, Illinois. IRWIN, 2004.
  - 3. Єрмошенко М. М., Ганущак-Єфіменко Л. М. Механізм розвитку інноваційкластерооб'єднаних ного потенціалу підприємств: монографія. наук. Національна академія управління, 2010.
  - ний розвиток підприємництва в Україні: стратегічні орієнтири: монографія. К.: of 400 c.
    - 5. Ганущак-Єфіменко Л. М. Концептуальні засади управління інноваційнопідприємств. Актуальні проблеми економіки. 2013. № 10. С. 93–99.
    - УкрІНТЕІ, 2006. 152 с.
  - with 7. Turpin D. Strategic Alliances with

Planning, Vol. 26, No. 4, P. 11–15.

- 8. Fabozzi, F.J., Markowitz, H.M. (2011). Equity 8. Fabozzi F. J., Markowitz H. M. Equity Valuation and Portfolio Management. Published October 4th 2011 by Wiley. Hardcover. 576 p.
- 9. Fabozzi, F.J., Markowitz, H.M. (Eds.) (2011). The Theory and Practice of Investment Management: Asset Allocation, Valuation, Portfolio Construction, and Strategies. Wiley. 725 p.
- 10. Pokataieva, K.P. (2009). Investytsiina diialnist 10. Покатаєва К. П. hlobalnomu seredovyshchi: pidpryiemstv u metodychnyi instrumentarii upravlinnia: monohrafiia середовищі: методичний інструментарій [Investment activity of enterprises in the global управління: монографія. Х.: Харківський environment: methodical tools of management: національний monograph]. Kharkiv National Automobile and Road yh-t, 2009. 168 c. University. 168 p. [in Ukrainian].

- *Range Planning*. 1993. Vol. 26, № 4. P. 11–15.
- Valuation and Portfolio Management. Published October 4th 2011 by Wiley. Hardcover, 576 p.
- 9. The Theory and Practice of Investment Management: Asset Allocation, Valuation, Portfolio Construction, and Strategies. Eds.: H. M. Markowitz. F. J. Fabozzi, 2011. 725 p.
- Інвестиційна діяльність підприємств у глобальному автомобільно-дорожній